(b) [Reserved]

§ 164.006–3 Construction, materials, and workmanship.

(a) It is the intent of this specification to obtain a deck covering made largely of incombustible materials with low heat transmission qualities which will produce a minimum of smoke when exposed to high temperatures.

(b) Deck coverings shall be of such a quality as to successfully pass all of the tests set forth in § 164.006–4.

§ 164.006–4 Inspection and testing.

(a) All tests shall be conducted at the National Bureau of Standards or other laboratories designated by the Coast Guard.

(b) *Smoke tests.* (1) A sample of each thickness submitted shall be tested for smoke emission. Each sample shall be laid on a ¼″ × 12″ × 27″ steel plate. Normal protective coatings and deck attachments shall be incorporated in the samples. Each sample shall be heated in a furnace whose temperature is limited to the standard decking curve reaching 1,325 degrees F. at the end of one hour. Smoke observations shall be made at intervals not greater than five minutes during the one-hour period of test.

(2) Instantaneous values of the percent of light transmission shall be calculated from the observations noted in paragraph (b)(1) of this section. A plot of light transmission values shall be made using straight lines between instantaneous values.

(3) Any instantaneous value of 10 percent light transmission or less shall be considered sufficient cause for rejection of a deck covering.

(4) Average values of light transmission shall be calculated for 15, 30, and 60 minutes. Averages shall be an arithmetic mean with values taken at one minute intervals from the plotted curve noted in paragraph (b)(2) of this section. If any of the three average values of light transmission is less than the values set forth below, it will be considered sufficient cause for rejection of a deck covering:

15 minutes—90 percent light transmission.
30 minutes—60 percent light transmission.
60 minutes—50 percent light transmission.

(c) *Fire resistance and integrity tests.* (1) A sample of each thickness submitted shall be tested for fire resistance and integrity. Each sample shall be laid on a ¼″ × 12″ × 27″ steel plate. Normal protective coatings and deck attachments shall be incorporated in the samples. Each sample shall be heated in a furnace whose temperature is controlled according to the standard fire exposure curve reaching 1,700 degrees F. at the end of one hour. Temperature of the unexposed side as indicated by a thermocouple under a 0.40 inch asbestos pad shall be observed at intervals not greater than 5 minutes during the one-hour period of test.

(2) Data from these tests shall be analyzed to determine the thicknesses necessary to limit the average temperature rise on the unexposed surface to 250 degrees F. above the original temperature at the end of 15, 30, and 60 minutes.

(3) Excessive cracking, buckling, or disintegration may be considered cause for rejection.

(d) *Organic carbon content test.* (1) The organic carbon content shall be determined and shall not exceed 0.12 gram per cubic centimeter of the molded deck covering.

(e) *Spot check tests.* (1) Deck coverings are not inspected at regularly scheduled factory inspections; however, the cognizant Officer in Charge, Marine Inspection, may detail a marine inspector at any time to visit any place where deck coverings are manufactured to conduct any inspections or examinations deemed advisable and to select representative samples for further examination, inspection or tests. The marine inspector shall be admitted to any place where work is done on deck coverings or component materials.

(2) Manufacturers of approved deck coverings shall maintain quality control of materials used, manufacturing methods, and the finished product so as to meet the requirements of this specification, and any other conditions outlined on the certificate of approval, but the Coast Guard also reserves the right to make spot-check tests of approved deck coverings at any time on samples selected by a marine inspector at the place of manufacture or samples obtained from other sources in the field.